OTUB1 polyclonal antibody

Catalog: BS61799 Host: Rabbit Reactivity: Human,Mouse,Rat

BackGround:

Protein ubiquitination and deubiquitination are reversible processes catalyzed by ubiquitinating enzymes (UBEs) and deubiquitinating enzymes (DUBs). DUBs are categorized into 5 subfamilies: USP, UCH, OTU, MJD, and JAMM. The OTU subfamily comprises a group of approximately 100 putative cysteine proteases that are homologous to the ovarian tumor gene product of Drosophila. OTUB1 and OTUB2 (OTU domain-containing Ubal-binding proteins) display no significant similarity to any known DUB, but are close homologs and possess an OTU domain that contains conserved cysteine, histidine, and aspartate residues that define the putative catalytic triad of cysteine proteases. Furthermore, sequence analysis of OTUB1 and OTUB2 reveals the presence of putative Ub-interaction motifs (UIMs) and Ub-associated domains (UBAs), which are characteristic of proteins that regulate protein ubiquitination. OTUB1 and OTUB2 also possess a putative nuclear localization signal (NLS) and a consensus LxxLL motif, which mediates the interaction between transcriptional co-activators and nuclear hormone receptors.OTUB1 exists as two isoforms that are generated by alternative splicing; the shorter 31 kDa isoform is ubiquitously expressed, while the longer 35 kDa isoform (ARF-1) has a more restricted expression pattern and is mostly detected in lymphoid organs. Biochemical analysis has demonstrated that OTUB1 has a preference for cleaving K48-linked polyubiquitin chains over K63-linked polyubiquitin chains and is capable of cleaving NEDD8, but not SUMO-1, -2, and -3 or ISG15 conjugates. OTUB1 isoforms have been implicated in anergy induction in CD4+ T cells by regulating the stability of the E3 ligase GRAIL. More recently, OTUB1 was found to bind to and inhibit the E2 activity of UBE2N through a novel mechanism not involving OTUB1 DUB activity, thus compromising the ability of the E3 ligase RNF168 to drive ubiquitination-dependent repair of DNA double-strand lesions. OTUB1 also appears to suppress MDM2-dependent ubiquitination of p53 independent of its catalytic activity, primarily by suppressing the activity of the MDM2 cognate E2 UbcH5.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

~ 31, 35 kDa

Swiss-Prot:

Q96FW1

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1:1000

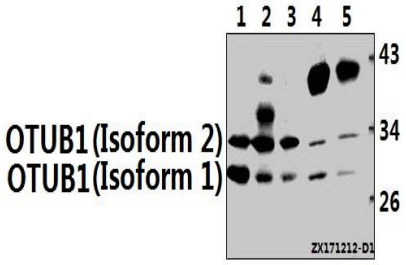
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

Specificity:

OTUB1 pAb detects endogenous levels of OTUB1 protein.

DATA:



Western blot (WB) analysis of OTUB1 pAb at 1:500 dilution

Lane1:CT26 whole cell lysate(40ug)

Lane2:Hela whole cell lysate(40ug)

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Lane3:A2780 whole cell lysate(40ug)

Lane4:H9C2 whole cell lysate(40ug)

Lane5:Panc1 whole cell lysate(40ug)

Note:

For research use only, not for use in diagnostic procedure.

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